

Evaluation of the Municipal and Domestic Supply (MUN) Beneficial Use in Agriculturally Dominated Water Bodies

Sacramento POTW Receiving Water Case Study

## **Draft Work Plan**

March 20, 2013

# Section 1 Project Overview

## 1.1 Background

The primary duty of the Central Valley Regional Water Quality Control Board (Central Valley Water Board) is to protect the quality of the waters within the Central Valley Region for all beneficial uses. To carry out this duty, the Central Valley Water Board has two Basin Plans (Sacramento River/San Joaquin River, Tulare Lake) which have the legal force and effect of regulation. These Basin Plans designate beneficial uses, establish water quality objectives, describe implementation plans, describe monitoring and surveillance programs and incorporate state policies. Any amendment to a Basin Plan must consider and evaluate each of these components.

Through State Water Board Resolution No. 88-63, the "Sources of Drinking Water Policy" (88-63) as incorporated into both the Sacramento River/San Joaquin River and the Tulare Lake Bed Central Valley Regional Water Quality Control Board Basin Plans, the MUN beneficial use applies to all water bodies unless they are specifically listed as water bodies that are not designated with MUN. While Resolution 88-63 does contain exceptions for the MUN designation, to utilize the exception, the Basin Plans currently require "... a formal Basin Plan amendment and public hearing, followed by approval of such an amendment by the State Water Board and the Office of Administrative Law", as noted in each plan's implementation chapter under the discussion of 88-63.

In recent years, during permit adoptions for the National Pollution Discharge Elimination System (NPDES) program, there have been challenges to requirements based on protecting the MUN beneficial use designation in agricultural drains due to the stated exception 2(b) in 88-63 for surface waters where the "water is in systems designed or modified for the primary purpose of conveying or holding agricultural drainage waters, provided that the discharge from such systems is monitored to assure compliance with all relevant water quality objectives as required by the Regional Boards." The cost for Publically Owned Treatment Works (POTWs) to comply with protecting the MUN beneficial use has been estimated at \$3 - \$7 million (City of Willows, case example) primarily due to the need to ensure a disinfection process and denitrification in order to meet primary and secondary MCLs for selected constituents. In the Sacramento River Basin, the cities of Willows, Colusa, Biggs and Live Oak are facing this specific concern and have challenged the MUN designation during NPDES permit renewals. These POTWs have been provided the option of pursuing a basin plan amendment as part of their permit compliance.

The Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative has also identified the need to evaluate the level of appropriate protection of MUN beneficial uses in agriculturally dominated water bodies both for point source dischargers facing the issues identified above and also due to the potential impediment to developing recycling and water conservation efforts within agricultural areas throughout the valley should primary and secondary MCLs be enforced in all water bodies. CV-SALTS identified the receiving waters of the above four POTWs as potential case studies or archetypes for evaluating the appropriateness of a MUN designation since the receiving waters are a combination of constructed and Ag dominated water bodies. The review would clarify appropriate use of one or more exceptions identified for

constructed Ag drains in the 88-63, while also evaluating appropriate protection of MUN in other Ag dominated water bodies.

The Central Valley Water Board recognized the need for evaluating appropriate MUN as well as other beneficial uses in Ag dominated water bodies during its October 2011 Sacramento/San Joaquin River Basin Plan Triennial Review. The approved triennial review work plan included nominal staff resources to initiate both evaluations. Staff are working in conjunction with the CV-SALTS initiative on this evaluation in order to combine and leverage resources for the initial MUN evaluation with the recognition that the resulting work can lay the groundwork for future beneficial use evaluations. The four POTWs are active participants in this project and will serve as case studies for the development of a framework for evaluating the appropriate MUN beneficial use protection, water quality objectives, as well as implementation and monitoring requirements in Ag dominated water bodies. Results of the effort will be evaluated to determine whether: 1) the work can serve as a case study/template for evaluating appropriate application of MUN throughout the rest of the Central Valley; and 2) provide the foundation for evaluating appropriate application of other beneficial uses to Ag dominated water bodies.

Any Basin Plan Amendment requires completion of a number of key technical tasks. The Central Valley Water Board has developed this work plan with the CV-SALTS Technical Advisory (TAC) to detail these technical tasks and assign the appropriate timeline and resource allotments.

### 1.2 Work Plan Purpose

The Central Valley Water Board staff and the CV-SALTS Executive Committee agree that pursuing an evaluation of the MUN beneficial use in a sub-area of the Sacramento River Valley Watershed (Biggs, Colusa, Live Oak and Willows) can serve as an appropriate archetype or template for studies to evaluate the MUN beneficial use on Ag dominated water bodies throughout the Central Valley. In addition, initial feedback from region-wide stakeholders has been supportive of using the water body categorical approach and using the efforts during the 1990s (Inland Surface Water Plan and Agricultural Task Force) as a starting point for the development of a framework for determining the appropriate beneficial uses in Ag dominated water bodies.

The purpose of this work plan is to provide a course of action necessary to complete the technical tasks associated with a BPA to address the appropriate MUN beneficial use in Ag dominated water bodies that serve as the receiving waters of the Sacramento Area POTWs as well as develop a template that can be utilized for similar evaluations in other areas of the Central Valley. To fulfill these purposes, this work plan must address the following objectives:

- (1) Formulate a strategic plan involving Central Valley stakeholders
- (2) Compile background information (Sacramento Archetype Study)
- (3) Survey conditions and current uses (Sacramento Archetype Study)
- (4) Develop Basin Plan Amendment (BPA) alternatives and conduct CEQA public scoping meeting(s)
- (5) Design/conduct/assess a water quality monitoring program (Sacramento Archetype Study)
- (6) Refine BPA alternatives
- (7) Develop a Staff Report and recommendation to the Board
- (8) Conduct public review/workshops

- (9) Conduct peer review (if needed)
- (10) Obtain a Regional Board Decision/Adoption
- (11) Obtain State Board Approval
- (12) Obtain Office of Administrative Law (OAL) Approval



## Section 2 Work Plan Tasks and Schedule

#### 2.1 Work Plan Tasks

This work plan addresses the objectives described in Section 1.2 through the completion of twelve key tasks. The following text describes the work to be completed under each of these Tasks. Section 2.2 describes the deliverables for each task and Section 2.3 provides a general schedule to complete the work.

#### Task 1 -Formulate Strategic Plan

With the multiple components of the potential project (constructed Ag drains, Ag dominated water bodies, only for Sacramento Valley POTWs, expanded to entire Central Valley, laying groundwork for evaluation of multiple beneficial uses in addition to MUN, etc.) it is critical to engage Central Valley stakeholders in the project. In addition, The first few months of the project will focus on stakeholder outreach and developing a consensus on priorities and approach as it is recognized that all beneficial uses in all Ag dominated water bodies cannot be addressed within the compliance time schedules currently faced by Sacramento Area POTWs,

- 1.1 Initial Planning Meetings with stakeholders
- 1.2 Development of Stakeholder participant list
- 1.3 Start-up region-wide stakeholder meetings
- 1.4 Draft process and work plan
- 1.5 Finalize process and work plan

#### Task 2 -Compile Background information (Sacramento Archetype Study)

Evaluations of Ag dominated water bodies have been conducted in the past, notably in reports to the State Water Resources Control Board by the Central Valley Water Board in response to the statewide Inland Surface Water Plan (CVWB, 1992) and by the statewide stakeholder group that comprised the Ag Water Task Force (AGWTF, 1995). In addition, the State Sources of Drinking Water Policy (Resolution 88-63) has specific water quality, use and/or construction requirements to utilize exceptions to the application of MUN. Information from previous work as well as previous and current conditions within the study area will be compiled and evaluated.

- 2.1 Review Inland Surface Water Plan/Ag Water Task Force Report
- 2.2 Compile Historic Water Quality Data
- 2.3 Assess existing Water Rights records
- 2.4 Create Study Area Maps
- 2.5 Review existing NPDES Permits for monitoring requirements

#### Task 3 - Survey Conditions/Uses (Sacramento Archetype Study)

Evaluate characteristics of the study area including hydrology, water body physical characteristics, current use patterns, and water management/use.

- 3.1 Meet with local reclamation/water districts and review archetype study areas
- 3.2 Conduct physical surveys of archetype study areas

#### Task 4 -Initial Alternatives/CEQA Scoping

Projects of statewide, regional or area-wide significance are required to have CEQA (California Environmental Quality Act) Scoping. Scoping meetings are to assist staff in determining the scope and content of the project as well as identifying the range of actions, alternatives, mitigation measures and significant effects of the project to the environment.

- 4.1 Develop initial framework and alternatives based on stakeholder feedback
- 4.2 CEQA Scoping Meeting Preparation
- 4.3 Conduct CEQA Scoping Meetings

#### Task 5 - Design/Conduct/Assess Monitoring

Water quality monitoring in the Sacramento Archetype study area is necessary to fully understand the upstream or background conditions of the receiving water bodies for the four Sacramento POTWs and the potential impacts of their effluent discharge to downstream water bodies. This monitoring program will follow California's Surface Water Ambient Monitoring Program (SWAMP) requirements.

- 5.1 Develop Monitoring Program
- 5.2 Technical Review (CV-SALTS TAC, initial review and for proposed revisions)
- 5.3 Lab Contract Maintenance and/or Procurement
- 5.4 Conduct Monitoring
- 5.5 Data Management
- 5.6 Assessment of Results

#### Task 6- Refine Alternatives and Develop Process to Conduct Appropriate MUN Evaluations

It is anticipated that the alternatives needing refinement include applying exceptions specified in the Sources of Drinking Water Policy, developing additional categories of MUN use, and developing different water quality objectives for different levels of protection. Any such considered changes require identification of an implementation plan to allow the objectives to be met and a monitoring and surveillance program to ensure that the implementation is working. In addition, alternatives will be reviewed against applicable state policies. Specific work conducted in the Sacramento Valley study area will be used to develop a proposed evaluation process.

6.1 Review of CEQA scoping meeting comments

- 6.2 Refinement of Water Body categories
- 6.3 Refinement of MUN Beneficial Use (as needed)
- 6.4 Refine Water Quality Objectives (as needed)
- 6.5 Develop Implementation framework and time schedule(as needed)
- 6.6 Develop Monitoring/Surveillance Plan (as part of Implementation Program)
- 6.7 Review of other policy issues
- 6.8 Identify preferred evaluation process

#### Task 7 - Prepare Staff Report

A Central Valley Water Board Staff Report is necessary for a Basin Plan Amendment. This report will be an in depth evaluation of the project including a preferred option and alternative options. This report will contain the necessary components of a Basin Plan Amendment as shown below by each sub-task.

- 7.1 Problem Statement
- 7.2 Laws, Plans, Policies
- 7.3 Structured Scientific Analysis
- 7.4 Refined Alternatives
- 7.5 Water Quality Objectives
- 7.6 Implementation Program (including Economic Analysis and Monitoring/Surveillance Plan)
- 7.7 CEQA documentation
- 7.8 References

#### Task 8 - Public Review

This project has public review opportunities throughout the project timeline. All public comments will be reviewed and responded to as needed.

- 8.1 Stakeholder meetings for Alternatives Development
- 8.2 Stakeholder meeting to determine whether to continue BPA process to meet POTW compliance needs
- 8.3 Public Review of Draft Staff Report
- 8.4 Public Workshop of Revised Staff Report (post peer review)—as needed

#### Task 9 - Peer Review (if needed)

A Scientific Peer Review will be conducted on the Draft Staff Report following the steps outlined by the State Board Standards group.

- 9.1 Peer Review Preparation
- 9.2 Conduct Peer Review
- 9.3 Comments/Responses to Peer Review

#### Task 10- Regional Board Adoption

A number of critical steps are required, along with appropriate time allowances, in order to bring a Basin Plan Amendment proposal to the Central Valley Water Board. This project takes into account these steps as summarized below.

- 10.1 Agenda Package Preparation
- 10.2 Response to Public Comments
- 10.3 Late Revisions
- 10.4 Regional Board Hearing
- 10.5 Regional Board Adoption

#### Task 11 - State Water Resources Control Board (State Board) Adoption

As with a Regional Board Adoption, there are key tasks that must be completed before a Basin Plan Amendment can be adopted by the State Board.

- 11.1 State Board Hearing Preparation
- 11.2 State Board Basin Planning Division Review
- 11.3 State Board Hearing
- 11.4 State Board Adoption

#### Task 12 - Office of Administrative Law (OAL) Approval

An approval by the OAL is required before a Basin Plan Amendment can be finalized and go into effect.

- 12.1 OAL Approval Preparation
- 12.2 OAL Review
- 12.3 OAL Approval

### 2.2 Work Plan Deliverables and Schedule

Table 2-1 summarizes the primary task deliverables and review requirements associated with the
implementation of the tasks in this work plan. Figure 2-1 provides the schedule for completion of
work plan tasks.



Table 2-1: Work plan Tasks and Deliverables

Tasks	Subtasks	Primary Deliverable(s)	Primary Review Requirements
	1.1 – Initial Planning Meetings with stakeholders (CV-SALTS, POTWs, US EPA, SWRCB, Sacramento Valley ILRP Coalitions)	<ul> <li>Meeting Agendas</li> <li>Meeting Minutes</li> <li>Handouts and presentations as needed</li> </ul>	Not applicable
	1.2 – Development of stakeholder participant list	<ul><li>Contact database</li><li>Emails and letters</li></ul>	Not applicable
Task 1 –Strategic Planning	1.3 – Start-up region-wide stakeholder meetings	<ul> <li>Meeting Agendas</li> <li>Meeting Minutes</li> <li>Handouts and presentations as needed</li> <li>Project Website</li> </ul>	Not applicable
	1.4 – Draft process and work plan	Draft Work Plan	Central Valley Water Board CV-SALTS
	1.5 – Finalize process and work plan	Final Work Plan	Central Valley Water Board CV-SALTS
	2.1 – Review Inland Surface Water Plan/Ag Water Task Force Report	Fact Sheet	
	2.2 – Compile Historic Water Quality Data	Excel worksheet summaries	
Task 2 – Compile Background	2.3 – Assess existing Water Rights Records	Fact Sheet	Not applicable
	2.4 – Create Study Area Maps	<ul><li>GIS map files</li><li>Image map files</li></ul>	
	2.5 – Review existing NPDES Permits for monitoring requirements	Fact Sheet	
3.1 – Meet with local reclamation/water districts review archetype study area		<ul><li>Meeting Agendas</li><li>Meeting Minutes</li></ul>	Not applicable
Conditions/Uses	3.2 - Conduct physical surveys of archetype study areas	Site Survey Reports	Not applicable
Task 4 – Initial Alternatives/CEQA Scoping	4.1 – Develop initial framework and alternatives based on stakeholder feedback	<ul> <li>Water body categorization flow charts</li> <li>Decision Tree flow charts</li> <li>Project Definition summary</li> <li>Water body characterization summary</li> </ul>	Central Valley Water Board Lega Review of documents to public

Table 2-1: Work plan Tasks and Deliverables

Tasks	Subtasks	Primary Deliverable(s)	Primary Review Requirements
	4.2 – CEQA Meeting Preparation	<ul> <li>CEQA scoping notice</li> <li>CEQA scoping mailing list</li> <li>Lyris email list</li> <li>CEQA informational document</li> </ul>	Requirements
	4.3 – Conduct CEQA Meeting	<ul> <li>Meeting agenda</li> <li>Meeting presentation</li> <li>Meeting minutes</li> <li>Handouts as needed</li> </ul>	
Task 5 – Design/Conduct/Assess Monitoring	5.1 – Develop Monitoring Program – review and revise as needed	<ul><li>Monitoring Plan</li><li>QAPP</li></ul>	CV-SALTS Technical Advisory Committee (TAC) Review, Central Valley Water Board QA officer
	5.2 – Technical Review	<ul> <li>Stakeholder Meeting Presentations</li> <li>TAC Meeting Presentations and summaries as needed</li> </ul>	(initial review and as needed for any adjustments)
	5.3 – Lab Contract Maintenance and/or Procurement	<ul><li>Request For Proposal, if needed</li><li>Lab Contract</li></ul>	CV-SALTS Executive Committee
	5.4 – Conduct Monitoring	<ul> <li>Emails for coordination with POTWs and labs</li> <li>Field Sheets</li> <li>Chain of Custody Forms</li> <li>Lab Reports</li> <li>QA/QC</li> </ul>	Region 5 SWAMP procedures
	5.5 – Data Management	<ul><li>Excel data summaries</li><li>Lab reports</li></ul>	SWAMP QA procedures
	5.6 – Assessment of Results	<ul><li>Quarterly Summaries</li><li>Final Report</li></ul>	Stakeholders CV-SALTS TAC (as needed)
Task 6 – Refine Alternatives	6.1 – Review of CEQA Scoping meeting comments	Summary of comments and responses	
	6.2 – Refinement of Water Body categories	<ul> <li>Meeting Agenda(s)</li> <li>Meeting Minutes</li> <li>Update of Water Body categorization flow chart/characterizations</li> <li>Definitions</li> </ul>	Central Valley Water Board Legal and CV-SALTS Policy Committee as needed
	6.3 – Refinement of MUN	Meeting Agenda(s)	

Table 2-1: Work plan Tasks and Deliverables

Tasks	Subtasks	Primary Deliverable(s)	Primary Review Requirements
	Beneficial Use (as needed)	<ul> <li>Meeting Minutes</li> <li>Update of Decision Tree flow charts</li> <li>Summary of proposed MUN beneficial use for different water body categories</li> </ul>	·
	6.4 – Refinement of Water Quality Objectives(as needed)	<ul> <li>Meeting Agenda(s)</li> <li>Meeting Minutes</li> <li>Review of applicable state/federal regulation for establishing water quality objectives</li> <li>Development of Alternative SSOs</li> <li>Evaluation of Water Code 13241 factors</li> <li>Summary of proposed Water Quality Objectives for refined MUN Beneficial Use (as needed)</li> </ul>	
	6.5 – Develop Implementation framework and time schedule (as needed)	<ul> <li>Meeting Agenda(s)</li> <li>Meeting Minutes</li> <li>Summary documents as needed</li> <li>Review of state/federal regulations on implementation</li> <li>Actions to achieve proposed WQOs (effluent limitations, economic considerations)</li> <li>Time schedule</li> <li>Antidegradation analysis</li> </ul>	
	6.6 – Develop Monitoring/Surveillance Plan (as part of Implementation Program)	<ul> <li>Meeting Agenda(s)</li> <li>Meeting Minutes</li> <li>Summary documents as needed</li> </ul>	
	6.7 – Review of other policy issues	<ul><li>Meeting Agenda(s)</li><li>Meeting Minutes</li><li>Summary documents as needed</li></ul>	
	6.8 – Identify preferred evaluation process	<ul><li>Meeting Agenda(s)</li><li>Meeting Minutes</li><li>Summary documents as needed</li></ul>	
	7.1 – Problem Statement	Refine Problem Statement, if needed	
Task 7 – Prepare Staff Report	7.2 – Laws, Plans, Policies	<ul> <li>Full evaluation of State and Federal laws including endangered species acts</li> <li>Full evaluation of State and Regional Policies, incorporating findings from above tasks when applicable</li> </ul>	Central Valley Water Board Legal Review

Table 2-1: Work plan Tasks and Deliverables

Tasks	Subtasks	Primary Deliverable(s)	Primary Review Requirements
	7.3 – Structured Scientific Analysis	<ul> <li>Summary analysis of current monitoring data and background information gathered in Task 2</li> <li>Summary of existing and proposed MUN beneficial use as gathered in Task 2 and Task 6</li> </ul>	
	7.4 – Refined Alternatives 7.5 – Water Quality Objectives 7.6 – Implementation Program (including Economic Analysis)	<ul> <li>Summary of Task 6 findings and recommendations</li> <li>Contract for Consultant</li> <li>Economic Analysis</li> </ul>	
	7.7 – CEQA documentation	<ul> <li>CEQA Checklist</li> <li>Contract for Consultant</li> <li>CEQA Analysis</li> </ul>	
	7.8 - References	List of applicable references	
Task 8 – Public Review	8.1 – Stakeholder Meetings for Alternatives development  8.2 – Stakeholder meeting to determine whether to continue Basin Plan Amendment process to meet POTW compliance needs  8.3 – Public Review of Draft Staff Report  8.3 – Public Workshop of Revised Staff Report (post Peer Review), as needed	<ul> <li>Public comments/responses summaries as needed</li> <li>Staff report and other documents will be updated as appropriate after each comment review period</li> </ul>	
Task 9 – Peer Review	9.1 –Peer Review preparation	<ul> <li>Email/phone requests</li> <li>Project description</li> <li>Identification of Scientific Issues</li> </ul>	State Board Review Process
(if needed)	9.2 – Conduct Peer Review  9.3 – Response to Peer Review	<ul> <li>Email/phone coordination as needed</li> <li>Summary of comments and responses to peer review</li> <li>Staff report and other documents will updated as appropriate after peer review</li> </ul>	
Task 10 – Regional Board Adoption	10. 1 – Agenda Package Preparation	<ul> <li>Draft Regional Board Resolution</li> <li>Staff report</li> <li>Notice of Hearing</li> <li>Notice of Filing</li> <li>Mailing List</li> </ul>	Central Valley Water Board Management and Legal Review

Table 2-1: Work plan Tasks and Deliverables

Tasks	Subtasks	Primary Review Requirements	
	10.2 – Response to Public	<ul> <li>Titles</li> <li>Item Summary/Buff Sheet</li> <li>Draft No Effect Determination form and resolution to DFG</li> </ul>	
	Comments  10.2 - Late Revisions  10.3 - Regional Board Hearing	<ul> <li>Public Comments/Response summary</li> <li>Updated Staff report with revisions</li> <li>Decisions/Comments by Central Valley Water Board</li> </ul>	- - -
	10.4 – Regional Board Adoption	Final Regional Board Resolution	
Task 11 – State Board	11.1 - State Board Meeting Preparation	<ul> <li>Final Board Resolution</li> <li>Administrative Record (2 copies)</li> <li>Administrative Index and transmittal record</li> <li>Concise summary of regulatory provisions</li> <li>Updated Website/Lyris List</li> </ul>	State Board Basin Planning
Approval	11.2 - State Board Basin Planning Division Review	Updated documents as needed	Division Review and Legal Review
	11.3 - State Board Hearing	Decisions/Comments by State Board	
11.4 – State Board Adoption  12.1 - OAL Approval Preparation		<ul> <li>Final State Board Resolution</li> <li>Final State Board Resolution,</li> <li>Administrative Record (1 copy),</li> <li>Updated Concise summary of regulatory provisions</li> <li>Chief Counsel Certifications</li> <li>OAL Form 400 (7 copies)</li> <li>DFG No Effect Form or Fee</li> </ul>	OAL Review
	12.2 - OAL Review	Responses/changes to documents as needed	
	12.3 – OAL Approval	OAL Approval	

Figure 2-1. Work plan Schedule

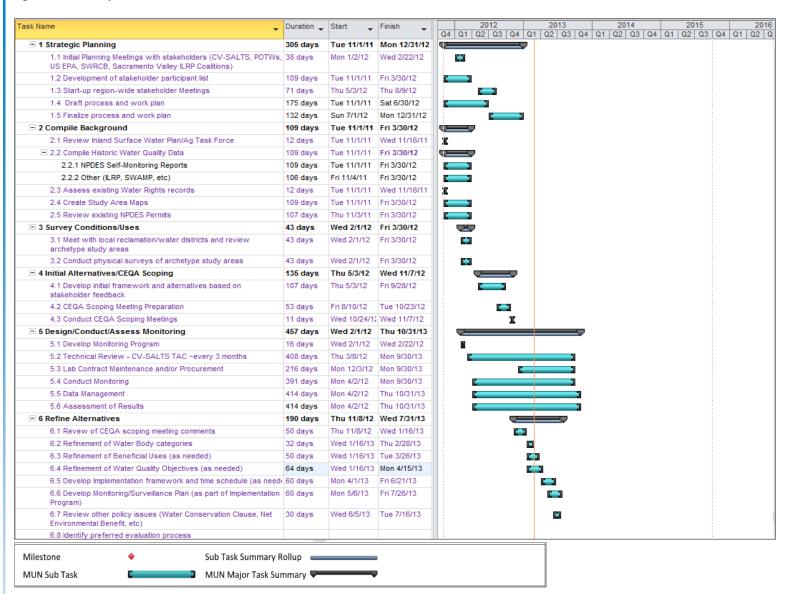
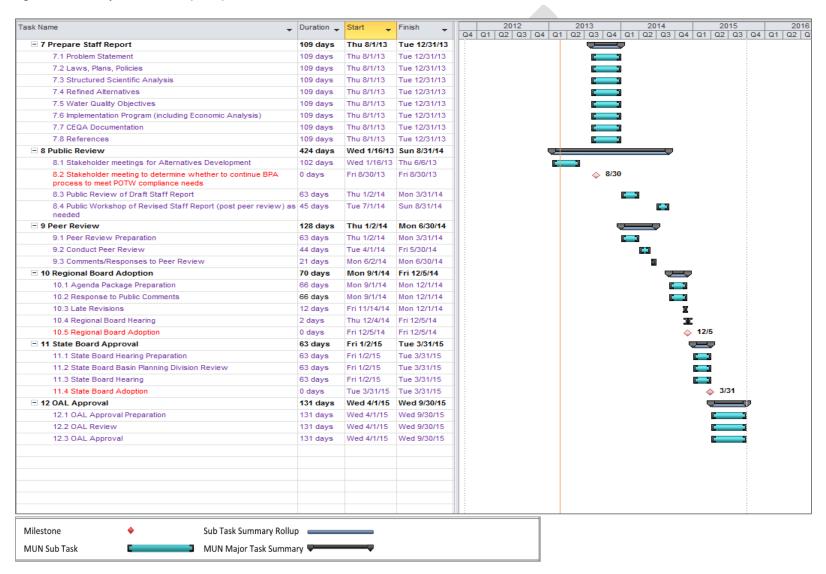


Figure 2-1. Work plan Schedule (cont.)



# Section 3 Work Plan Execution and Budget

This work plan will address the objectives described above through the completion of twelve key tasks. Table 3-1 summarizes the key entities responsible for completion of each task. Specifically, completion of project deliverables will require: (1) Regional Board staff time for all twelve tasks; (2) CV-SALTS Technical Advisory Support and Executive Committee Support for Tasks 5.2-5.3; (3) CV-SALTS contractor support for Task 7; and (4) if the project is expanded to include a template that can be utilized Central Valley-wide without additional environmental/economic review by individual stakeholders, additional CV-SALTS contractor support or stakeholder resource for Tasks 2, 6.6, 6.8 and Task 7.

Table 3-1 breaks out the budget needs expected for execution of these tasks for both the costs for including *only* the Sacramento Valley POTW study area as well as anticipated costs to ensure the developed process (template) can be expanded throughout the Central Valley Region. Evaluating the template in the San Joaquin River and Tulare Lake Basins now should allow additional costly environmental and economic analyses to be avoided in those areas by those utilizing the process in the future. Supplementary case study areas will be required to expand the template to the entire Central Valley to account for the different drainage patterns, hydrology and cumulative impacts in the other basins. Three likely case study areas include one on the east side of the San Joaquin River, one on the west side of the San Joaquin River and one in the Tulare Lake Basin.

The budget columns in Table 3-1 show that where existing resources can be dedicated to support a given task, no additional budget needs are anticipated. Specifically, Tasks 1, 3-5, 6.1-6.5, 6.7 and Tasks 8-12 are expected to be executed under existing budgeted resources dedicated by Regional Board staff or an existing contract. Tasks 2, 6.6 and 6.8 provide the option for a stakeholder resource or a contracted project assistant to review the preferred project alternative for the Sacramento Valley area and complete related tasks with additional case studies in the expanded Central Valley Region. Task 7 requires contractor support for preparing the staff report, especially in the areas of CEQA review and the economic analysis of implementation. These costs were based on an assumption that part of the environmental analysis can be tiered off of the existing work that was completed under the state's Sources of Drinking Water Policy (Resolution 88-63) that approved no MUN designation in systems designed or modified for the primary purpose of conveying or holding agricultural drainage waters if those discharges are monitored to ensure protection of downstream beneficial uses. However, additional work will be needed to further evaluate other types of agriculturally dominated water bodies within the study areas (natural water bodies and/or constructed facilities utilized to supply Ag irrigation flows).

In total, budget needs to conduct the environmental and economic reviews needed for the final staff report are estimated at \$200,000 for the Sacramento Valley Study area

alone and up to \$350,000 if three additional case studies in the San Joaquin and Tulare Lake Basins are included (approximately \$50,000 per additional site).

Applying the preferred alternative within the additional areas, currently anticipated as categorizing Ag dominated water bodies, is not anticipated to incur additional costs if the application is conducted by a stakeholder resource with review by Central Valley Water Board staff. Should the application need to be conducted by outside sources, it is anticipated that the work would require the services of a half time post graduate research assistant at \$40,000 for one year. Should additional review of historic water quality and previous categorizations under the 1992 Inland Surface Water Plan for the three additional case studies be required, it is anticipated that the work would require \$40,000 for one year for a half time post graduate project assistant.



Table 3-1. Task Execution Responsibilities and Anticipated Budget Needs

			Sacramento Study A		Expansion for Central Valley Template	
Tasks	Subtasks	Primary Responsibility for Execution	Current Budget Status	Anticipated Additional Budget Needs	Anticipated Additional Tasks	Anticipated Additional Budget Needs
Task 1 –Strategic Planning	1.1 – Initial Planning Meetings with stakeholders (CV-SALTS, POTWs, US EPA, SWRCB, Sacramento Valley ILRP Coalitions)  1.2 – Development of stakeholder participant list  1.3 – Start-up region-wide stakeholder meetings  1.4 – Draft process and work plan  1.5 – Finalize process and work plan	Central Valley Water Board Staff	Funds Covered by CV Water Board	None	No	ne
Task 2 – Compile Background	2.1 – Review Inland Surface Water Plan/Ag Water Task Force Report 2.2 – Compile Historic Water Quality Data 2.3 – Assess existing Water Rights Records 2.4 – Create Study Area Maps 2.5 – Review existing NPDES Permits for monitoring requirements	Central Valley Water Board Staff	Funds Covered by CV Water Board	None	Optional: Expand background compilation tasks to San Joaquin River and Tulare Lake Basins	Stakeholder Resource or Post Graduate Project Assistant (50%, \$40,000)
Task 3 – Survey Conditions/Uses	3.1 – Meet with local reclamation/water districts and review archetype study areas 3.2 - Conduct physical surveys of archetype study areas	Central Valley Water Board Staff	Funds Covered by CV Water Board	None	None	
Task 4 – Initial Alternatives/CEQA Scoping	<ul> <li>4.1 – Develop initial framework and alternatives based on stakeholder feedback</li> <li>4.2 – CEQA Meeting Preparation</li> <li>4.3 – Conduct CEQA Meeting</li> </ul>	Central Valley Water Board Staff	Funds Covered by CV Water Board	None	No	ne

			Sacramento		Expansion for	
			Study A	rea	Central Valley	y Template
Tasks	Subtasks	Primary Responsibility for Execution	Current Budget Status	Anticipated Additional Budget Needs	Anticipated Additional Tasks	Anticipated Additional Budget Needs
Task 5 – Design/Conduct/ Assess Monitoring	5.1 – Develop Monitoring Program- review and revise as needed	Central Valley Water Board Staff				
	5.2 – Technical Review (every 3 months)	Central Valley Water Board and Stakeholders, CV-SALTS TAC if there are changes	Funds Covered by CV Water Board			
	5.3 – Lab Contract Maintenance and/or Procurement	Central Valley Water Board Staff/ CV-SALTS Executive Committee	Funds Fully Covered (~\$122,000):  ~\$46,000 from CV- SALTS ~\$2,000 from POTWs ~\$60,000 from Central Valley Water Board Lab Contracts	None	Non	ne
	5.4 – Conduct Monitoring 5.5 – Data Management	Central Valley Water Board	Funds Covered by CV Water Board			
	5.6 – Assessment of Results	Staff				

			Sacramento Study A		Expansion Central Valle	
Tasks	Subtasks	Primary Responsibility for Execution	Current Budget Status	Anticipated Additional Budget Needs	Anticipated Additional Tasks	Anticipated Additional Budget Needs
Task 6 – Refine Alternatives	6.1 – Review of CEQA Scoping meeting comments 6.2 – Refinement of Water Body categories 6.3 – Refinement of MUN Beneficial Use (as needed) 6.4 – Refinement of Water Quality Objectives(as needed) 6.5 – Develop Implementation framework and time schedule (as needed) 6.6 – Develop Monitoring/Surveillance Plan (as part of Implementation Program) 6.7 – Review of other policy issues	Central Valley Water Board Staff, Stakeholders	Funds Covered by CV Water Board		Develop Monitoring and Surveillance for San Joaquin River and Tulare Lake Basins  Nor  Use Refined Water Body Categories to evaluate case study areas in San Joaquin River and Tulare Lake Basins	Stakeholder Resource or Post Graduate Project Assistant (25%, \$20,000)
Task 7 – Prepare Staff Report	7.1 – Problem Statement 7.2 – Laws, Plans, Policies (Sources of Drinking Water Policy, Anti-degradation, Net Environmental Benefit, etc.) 7.3 – Structured Scientific Analysis 7.4 – Refined Alternatives	Central Valley Water Board Staff	Funds Needed	Consultant (\$200,000)	Expansion of all Task 7 subtasks to the cover the San Joaquin River and Tulare Lake Basins	Consultant (\$150,000 – an estimated \$50,000 for each of three areas)

			Sacramento POTW		Expansion for	
			Study A	rea	Central Valle	y Template
Tasks	Subtasks	Primary Responsibility for Execution	Current Budget Status	Anticipated Additional Budget Needs	Anticipated Additional Tasks	Anticipated Additional Budget Needs
	7.5 – Water Quality Objectives			-		
	7.6 – Implementation Program (including Economic Analysis)					
	7.7 – CEQA documentation					
	7.8 - References					
	8.1 – Stakeholder Meetings for Alternatives development					
Task 8 – Public Review	8.2 – Stakeholder meeting to determine whether to continue Basin Plan Amendment process to meet POTW compliance needs	Public/Stakeho Iders	Funds Covered by CV Water Board	None	None	
	8.3 – Public Review of Draft Staff Report  8.3 – Public Workshop of Revised Staff Report (post Peer Review), as needed					
	9.1 –Peer Review preparation	Central Valley				
Task 9 – Peer	9.2 – Conduct Peer Review	Water Board	Funds Covered by	None	Non	e
Review (if needed)	9.3 – Response to Peer Review	Staff/Peer Reviewers	CV Water Board		1101	
	10. 1 – Agenda Package Preparation					
Task 10 – Regional	10.2 – Response to Public comments	Central Valley	Funds Covered by			
Board Adoption	10.3 - Late Revisions	Water Board	CV Water Board	None		
	10.4 - Regional Board Hearing	Staff	37 Mater Bourd			
	10.5 - Final Legal Review				None	e
Task 11 – State Board Approval	11.1 - State Board Meeting Preparation 11.2 - State Board Basin Planning Division Review 11.3 - State Board Hearing	Central Valley Water Board Staff/State Board Basin	Funds Covered by CV Water Board	None		
	11.4 - Final Legal Review	Planning Staff				

		Sacramento POTW Study Area		Expansion for Central Valley Template		
Tasks	Subtasks	Primary Responsibility for Execution	Current Budget Status	Anticipated Additional Budget Needs	Anticipated Additional Tasks	Anticipated Additional Budget Needs
Task 12 – OAL Approval	12.1 - OAL Approval Preparation  12.2 - OAL Review	Central Valley Water Board Staff/OAL Staff	Funds Covered by CV Water Board	None	None	
Total Anticipated Budget needs (March 2013):				\$200,000		\$430,000